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(54) Title: A NOVEL SIRNA-BASED APPROACH TO TARGET THE HIF-lpha FACTOR FOR GENE THERAPY

 $HIF-1\alpha,120 kD$

🛚 ß-actin, 42kD

(57) Abstract: The presently disclosed subject matter provides vectors that encode small interfering RNAs (siRNAs) designed to down regulate the expression of hypoxia-inducible genes in a cell. Also provided are compositions and host cells based upon the vectors, as well as methods of using the vectors. The presently disclosed subject matter further provides a method of inhibiting tumor growth infecting cells in a tumor with an adenovirus vector that encodes an siRNA directed against the hypoxia-inducible factor 1α (H IF-1α) gene.

